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RECENT DEVELOPMENTS AND STRUCTURAL CHANGES IN THE TEXTILE AND CLOTHING INDUSTRY OF THE USSR*

Prepared by the

Regional and Country Studies Branch

Department for Programme and Project Development

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EXPLANATORY NOTE

In tables:

Three dots (...) indicate that data are not available or are not separately reported;

A dash (-) indicates that the amount is nil or negligible;

Totals may not add precisely because of rounding.

Preface

UNIDO's Regional and Country Studies Branch is regularly analysing essential features of the structural changes in industry in developed countries. The purpose is to give developing countries a picture of the driving forces and emerging trends on the international economic scene. In this context the textile and clothing industry is of special interest.

The textile and clothing industry is of particular importance for many developing countries in terms of employment, for supplying the domestic market and for generating foreign exchange through exports. In this context development trends on developed countries' markets are of major relevance. Firstly, these trends may reveal market prospects for developing countries, and secondly they can provide an indication of the nature and forms of structural adjustment processes that emerge and the policies and measures that are used to rationalize the sector.

This paper reviews current trends in the textile and clothing industry of the Soviet Union. It focuses on different aspects of restructuring in the textile and clothing industry of the USSR, describes new trends and developments, analyses efforts to improve its efficiency and quality of finished goods, outlines prospects for further development.

The study is based on findings of Mr. Mikchail Konotopov of the All-Union Research Institute of Market Studies, Moscow, UNIDO consultant.

SUMMARY AND CONCLUSIONS

The textile and clothing industry in the USSR has undergone significant structural changes in the last few years, and this process is likely to continue even more intensively in the future. The main directions of restructuring in the sector are contained in the recently adopted Long-term Comprehensive Programme for Development of Consumer Goods Production and Services in 1986-2000 and the Guidelines of Economic and Social Development of the USSR in 1986-1990 and up to the Year 2000. These include the following objectives:

- faster adjustment of the textile and clothing production to changing demand and supply, to be promoted by improved management and planning, and by investment policies oriented towards the restructuring and modernization of existing enterprises rather than creating new ones;
- improvements in the quality of textiles and clothing and considerable expansion in their assortment;
- increase in labour productivity to offset limited growth of labour supply;
- reductions in raw material and energy inputs per unit of output.

Technological changes, which are to be the main means to achieve the above objectives, will notably increase the speed of individual operations, reduce the number of operations required and increase the amount of automatic transfers between operations. It is also envisaged to increase the use of new, non-traditional raw materials together with new processes and end products and to improve the organization, management and work processes throughout the industry by increasing the use of computers and microelectronics.

In the period from 1981 to 1985 the production of the textile industry increased at an average annual rate of 1.1 per cent and production of clothing by 2.0 per cent. However, growth in these sectors, especially in the textile industry, lagged behind growth in total industrial output (3.7 per cent in 1981-85).[1/]

As a result, the share of the textile and clothing industry in total manufacturing output declined from 16.0 per cent in 1970 to 13.0 per cent in 1985. This decline can be accounted for by the fact that, although real expenditure for textiles and clothing is still rising in absolute terms, it is growing slower than total personal consumption. Yet, there is a rather strong demand for fashionable textiles and clothing of superior quality.

Because of the rapid growth of the economy in the 1960s and 1970s labour gradually became scarce. This adversely affected the labour-intensive textile and clothing industry. The challenge for labour-saving rationalization and

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1/ Statistical Yearbook of CMEA Member Countries, Moscow, 1985.

capital-intensification was taken up in the early 1980s with a sharp increase of 7.6 per cent in investments in 1984 as compared to the previous year, resulting in a rise of labour productivity indices (1980 = 100) from 102 in 1981 to 108 in 1985 in the textile industry, and from 103 to 113 in the clothing industry.

The internal consumer demand in the USSR has undergone significant changes towards textile and clothing products of modern fashion and higher quality. The textile and clothing industry could not, however, so far fully meet these requirements. As a result "unmet hidden demand" has emerged, whereas - on the other hand - goods which consumers, particularly young people, considered as old-fashioned or ordinary were stockpiled. Consumers thus developed preferences for imported textile and clothing goods. The largest part of imports came from other CMEA member-countries, but the share of developing countries has been gradually growing and currently makes up for about 10 per cent of total Soviet textile and clothing imports. Entering the non-saturated Soviet market would be of potential benefit to developing countries as they would be able to partly offset the effects of shrinking Western markets.

Alongside with the previously practised forms of trade exchanges, new forms of economic and technical co-operation play an ever increasing role in the USSR's foreign relations. Co-operation is expected to be diversified and scopes expanded in 1987, as more than 20 ministries and approximately 70 major associations and enterprises were granted the right to deal directly with export and import operations on all external markets.

New forms of international co-operation include joint enterprises, which can be established in the USSR or/and in other countries on the basis of common property.

I. THE CHANGING STRUCTURE OF THE TEXTILE AND CLOTHING INDUSTRY IN THE USSR

1.1 Industrial structure

The textile and clothing industry of the USSR dominates the country's light industry, the latter being the largest employer in the manufacturing sector of the country, with 3.4 million people being on its payroll as of early 1985. The textile industry produces more than one half of the total light industry output, followed by the clothing industry. In terms of the output of fabrics, the USSR is second in the world after the USA. The USSR is a bigger producer than the USA of cotton and wool fabrics, but lags subtantially behind in the output of silk fabrics.

The textile industry has a rather complicated structure, whereas the clothing industry is fairly homogeneous. In general, the clothing industry consists of multiproduct and specialized mills, the share of specialized clothing factories having grown from 61 per cent of the total in 1975 to 86 per cent in 1980. Segments in the textile industry are formed in accordance with the raw material they use - cotton, flax, wool, linen, silk, hemp and jute. They, in turn, break down into groups of mills, which do the primary processing of raw materials, and groups of factories, which produce finished textile fabrics. The production of finished fabrics includes spinning, weaving and finishing and they encompass factories specializing in these processes as well as integrated textile combines.

The need has arisen to distinguish different segments according to the method of production (weaving, knitting, non-woven technologies) and the final use of finished products. From that point of view the following four independent segments of the textile industry can be singled out:

- primary processing of agricultural raw materials;
- traditional textile industries (weaving);
- advanced textile industries (knitting and production of non-woven fabrics); and
- all others.

The changes in individual textile and clothing products are shown in Table 1.1. In 1970-83 the production of non-woven fabrics, silk cloth, knitted underwear, carpets and rugs grew especially rapidly. The reason was higher consumer demand for these products and higher efficiency of their production. In spite of only moderate growth rates of production, cotton fabrics rank first in textiles. At the same time, production of wool fabrics - demand for which was stagnant - even slightly decreased.

Since the production of knitted garments and non-wovens requires substantially less capital expenditure per square meter with higher productivity of labour than weaving, the output of knitted garments and non-wovens in 1985 reached 508 million pieces and 855 million square meter respectively. This partly reflected the restructuring process in the textile industry.

Table 1.1 Output of selected textile and clothing products, 1970-1983

Output	1970	1975	1980	1981	1982	1983
Cotton fabrics (million sq. m)	6095.5	6567.6	7000.3	7101.7	7074.1	7211.6
Wool fabrics (million sq. m)	635.7	728.6	745.1	750.1	728.0	693.4
Silk fabrics (million sq. m)	1135.8	1489.4	1743.9	1779.8	1793.4	1855.3
Non-wovens (million sq.m)	73.5	134.9	267.3	359.7	508.7	552.0
Knitted garments (million pieces)	351.1	379.4	392.9	376.6	392.0	388.5
Knitted underwear (million pieces)	775.3	908.9	1098.4	1123.9	1107.2	1124.5
Carpets and rugs (million sw. m)	27927	35689	67775	73366	75783	77746
Clothing a/ (million roubles)	9801.2	12533.0	16398.6	16912.0	16458.8	16309.1

Source: Narodnoe Khozyaistvo SSSR (National Economy of the USSR), Moscow, 1984.

a/ Value at full production cost.

However, sharp changes in market fashion trends in 1982 and 1983 caused some slowdown in the production of garments with fashion beginning to be dominated by the so-called "sporting" office style. There was on the other hand an upturn in the demand for blended fabrics and varnished synthetic fabrics based on man-made light insulation. The clothing industry, however, failed to modify its production programmes in line with these new fashion trends and as a result suffered a fall in domestic demand. In general, it grew at substantially higher rates than the textile industry (Table 1.2).

Table 1.2 Growth rates of textiles and clothing output, 1975-85
(per cent)

	1976-1980	1981-1985
Textiles and knitting industry	2.7	1.1
Clothing industry	5.0	2.0

Source: Statistical Yearbook of CMEA Member Countries, Moscow, 1986.

1.2 Institutional structure

The textile and clothing industry of the USSR is under centralized planned management, with all textile and clothing enterprises being ultimately subordinate to the Ministry of Light Industry of the USSR.[1/] The Ministry uses the so-called four-level management structure. Under this structure, the actual responsibility for mill operation lies with the Ministries of the Light Industry of individual republics through their industrial associations (amalgamations) consisting of enterprises, associated according to their location and production processes.

The centralized management of the textile and clothing industry sets production targets such as planned output, product mix, profit, and productivity. To achieve these objectives industrial enterprises are supplied with necessary resources. It is, however, recognized that individual industrial enterprises should operate more independently. This is especially important for industries producing consumer goods, which are highly vulnerable to demand patterns and market trends.

Under the new system of economic management the enterprises are entitled to keep the bulk of their profits and to use them for production and/or social purposes, to manage their products list and to establish direct contractual relations with wholesale trade institutions. Today clothing enterprises develop their own production programmes on the basis of contracts with wholesalers and retailers. The sales prices can in some cases be negotiated between the buyer and seller. The clothing industry, in turn, places orders with textile factories.[2/] This system more flexibly responds to market changes and requirements.

It should be noted that Ministries of Light Industry of individual Soviet republics bear double responsibility: they are subordinate both to the Ministry of the Light Industry of the USSR and to the Council of Ministers of each republic, which co-ordinates all economic activities on its territory. In addition, there are also the Ministry of Textile Industry of the Russian Soviet Federal Socialist Republic, which accounts for more than 50 per cent of the entire textile output of the Soviet Union and several cotton processing ministries in Soviet Republics in Middle Asia and the Caucasus, the main cotton suppliers.

The Ministry of Light Industry of the USSR is the top authority in both technology and fashion. It has an extensive network of research, technology-designing, and engineering institutions and fashion houses. The clothing industry has a big research institute in Moscow with branches in several republics, an All-Union House of Fashion in Moscow and fashion houses in other large cities and large regional centers. Each textile industry segment has its own research institute. The Ministries of Light Industry in individual republics have their own designing institutions.

1/ Except for small mills operated by the Ministries of Domestic Industries of individual Soviet republics.

2/ Exclusive of some industrial fabrics or fabrics sold through retail shops.

The highest authority in the field of fashion is the All-Union Institute of the Light Industry Products. It studies worldwide and domestic fashion trends and develops future programmes. In addition, large clothing mills design their own models, accounting for almost 50 per cent of the total number of models produced. The assortment of textiles and clothing changes each year up to 40 and 60 per cent, respectively, and these figures have steadily been growing in recent years.

II. MAIN FEATURES OF THE TEXTILE AND CLOTHING INDUSTRY

2.1 New trends in the domestic market

The textile and clothing industry plays a significant role in the country's industrial activities, in the generation of national income, and in foreign trade. Despite the growth in output, in absolute terms, of the textile and clclothing industry, its share in the total manufacturing output is continuously declining (Table 2.1), coinciding with world trends.

Table 2.1 Share of the textile and clothing industry in the total manufacturing output, 1970-85
(per cent)

	1970	1975	1980	1984	1985
Textile industry	10.0	10.4	9.8	9.1	9.0
Clothing industry	4.7	4.2	4.4	3.8	3.7

Source: Statistical Yearbook of CMEA Member-Countries, Moscow, 1986.

A comparative analysis of changes in the per capita consumption of textiles and clothing (Table 2.2) and growth rates of their production shows that domestic consumption lags behind production. This fact partly reflects radically new trends in the consumption of consumer goods, which first appeared in the 1970s, when consumption of textiles and clothing not only grew at a reduced rate, but sometimes even severely dropped. This was accounted for by increased, but often unsatisfied, requirements of the population, the so-called unmet, hidden demand.

Table 2.2 Per capita consumption of textiles and clothing and its annual growth rates, 1970-1983

	Per capita consumption				Average annual growth rate (per cent)		
	1970	1975	1980	1983	1975/ 1971	1980/ 1976	1983/ 1981
Total fabrics (sq.m)	30.4	32.5	34.6	35.0	1.4	1.3	0.4
Including:							
Cotton	21.2	22.0	23.8	24.7	0.7	1.6	1.2
Wool	2.7	2.8	2.7	2.5	0.7	-0.8	-2.6
Silk	4.7	5.9	6.6	6.4	4.7	2.3	-6.0
Linen	1.8	1.8	1.5	1.4	1.0	-3.6	-2.3
Knitwear (pieces)	1.8	2.0	2.1	2.1	2.1	1.0	0.0
Knitted underwear (pieces)	3.5	3.9	4.4	4.6	2.2	2.4	2.2

Source: Calculated from Narodnoe Khozyaistvo SSSR v 1984 (National Economy of the USSR in 1984), Moscow, 1985.

This means that the internal markets are saturated with textiles and clothing, but that a considerable part of them are not sold because of inadequate quality, limited assortment and out-of-date fashion, even though consumers have enough money to buy them. Consequently imported goods become increasingly popular compared with domestic products. This trend was a new one for the socialist economy and was carefully investigated. Interviews with potential consumers revealed that more than 25 per cent of them refused to buy clothes because of unattractive design, pattern or colour. The price did not as a rule play any role as a determinant of demand.

This trend is more pronounced among the young generation. More than 70 per cent of the young buyers interviewed stated that they were ready to pay higher prices for products which would fully meet their requirements. Quality, and especially fashion, are now their chief criteria. On the other hand, the above mentioned trend signifies the fact that at the current level of development the textile and clothing industry in the USSR is able to meet quantitative demands of the population, but cannot satisfy the increasingly growing requirements for high quality, modern design and broad assortment.

Planning concepts for the textile and clothing industry are now being revised toward decentralization of operational activities of industrial enterprises within long-range central strategic objectives to bring production of textiles and clothing in harmony with domestic market requirement. The industrial policy of the sector is now centered around product range and quality programmes to eliminate major discrepancies between demand and supply.

There is even a new approach to the very definition of quality of textile and clothing products. In the past it was defined as the "correlation between the actual physical and mechanical properties and the established standards". The quality now is determined according to the end-users' appraisal and facilitates readjustment of the sector to market requirements.

2.2 Foreign trade in textiles and clothing

One of the key factors affecting the development of the textile and clothing industry is its participation in international trade. From that point of view it is of considerable interest to analyze the main trends and structure of the USSR's exports and imports in textiles and clothing (Tables 2.3 and 2.4). As foreign trade to a very large extent is vulnerable to the changing pattern of international economic relations and world markets, it is rather difficult to trace any long-term trends in its development.

Table 2.3 The textile and clothing exports of the USSR, 1970-1984

Product	Unit	1970	1975	1980	1984
Cotton fiber	Thousand tonnes	516.5	800.2	843.2	642.0
Flax fiber	Thousand tonnes	9.3	8.3	7.2	12.6
Cotton yarn	Thousand tonnes	5.3	2.1	1.4	2.3
Wool (washed weight)	Thousand tonnes	17.1	6.7	1.6	6.1
Cotton and cotton-type fabrics	Million metres	307.1	247.8	123.8	93.2
Wool and wool-type fabrics	Million metres	0.7	0.9	1.7	3.8
Silk and silk-type fabrics including synthetic silk fabrics	Million metres	3.3	3.4	7.1	6.9
Linen and linen-type fabrics	Million metres	3.9	4.0	2.3	1.9
Carpets and rugs	Thousand sq.m	274.4	397.3	428.3	344.5
Staple (spun) fabrics	Million metres	3.9	4.0	2.3	1.9
Clothing and bedding	Million roubles	14.6	25.5	19.0	24.5
Overcoats and dresses (exclusive of leathers and furs), shirts, and underwear (exclusive of knitwear)	Million roubles	6.8	10.1	9.3	13.2
Knitwear (including underwear)	Million roubles	3.6	10.2	3.3	3.4
Hosiery	Million roubles	-	-	-	1.8

Source: Vneshnayaya Torgovlya SSSR v 1984 godu (The USSR's Foreign Trade in 1984), Moscow, 1985.

Table 2.4 The textile and clothing imports of the USSR, 1970-1984

Product	Unit	1970	1975	1980	1984
Cotton fiber	Thousand tonnes	257.7	136.9	49.3	166.1
Flax fiber	Thousand tonnes	...	...	...	...
Wool (washed weight)	Thousand tonnes	82.7	110.0	124.2	89.6
Cotton yarn	Thousand tonnes	56.3	67.8	111.5	18.7
Cotton and cotton-type fabrics	Million metres	154.6	181.1	226.8	358.9
Wool and wool-type fabrics	Million metres	12.0	19.1	12.5	5.6
Silk and silk-type fabrics including synthetic silk fabrics	Million metres	81.8	156.3	157.5	144.6
Flax fabrics	Million metres	5.4	6.6	11.3	6.2
Carpets and rugs	Thousand sq.m	5.2	11.8	27.5	28.6
Clothing and linen	Million roubles	699.2	1135.5	1670.2	2291.9
Overcoats and dresses (exclusive of leathers and furs), shirts, and underwear (exclusive of knitwear)	Million roubles	435.4	683.9	956.4	1271.9
Knitwear (including underwear)	Million roubles	202.7	327.5	454.1	682.4
Hosiery	Million roubles	17.0	27.3	67.3	74.6

Source: Vneshnayaya Torgovlya SSSR v 1984 godu (The USSR's Foreign Trade in 1984), Moscow, 1985.

Nevertheless it can be pointed out that the USSR is increasing its exports of cotton and flax fibers, wool and silk fabrics, while on the other hand exports of cotton fabrics are gradually diminishing. These trends are mainly accounted for by the different level of internal demand for the above mentioned goods. A striking feature of the USSR's foreign trade in textiles and clothing is the high growth rate of clothing imports which is caused by the inability of the national clothing industry to meet the growing requirement of the population for goods of high quality and modern fashion. However, it should be noted that together with this trend there is also some growth of clothing exports, revealing the growing competitiveness of parts of the Soviet clothing industry.

Generally speaking the country's export potential was used inadequately. This situation was due to obsolete management methods in the foreign trade organizations. In fact, production associations and enterprises found themselves debarred from a direct participation in foreign economic activities. To improve this situation from 1 January 1987, more than 20 USSR ministries and the 70 largest associations and enterprises were granted the right to deal directly with export and import operations (including the Western and developing country markets). They will comprise self-supporting foreign trade firms. With creation of the proper prerequisites such rights will be granted to other ministries, organizations and enterprises. The USSR Foreign Trade Ministry and the State Committee for Foreign Economic Relations will supervise foreign trade operations to assure the State's interests. Associations and enterprises not yet authorized to advance on foreign markets will export and import products under contracts with the USSR Foreign Trade Ministry's associations.

New forms of international co-operation include joint enterprises, which can be established in the USSR and other countries on the basis of common property. Joint enterprises will be fully self-supporting and economically independent organizations having wide rights in export and import operations, co-ordination of prices for their products, contracts with other enterprises, etc. Profits obtained by these enterprises will be distributed among their participants in accordance with their contribution to the authorized fund. Joint enterprises in the USSR will operate within the system of the Soviet economy and be guided by the USSR's legislation, labour and social regulations as applied to Soviet citizens.

In 1984 the USSR maintained trade and economic relations with 103 developing countries. The Soviet trade turnover with these countries increased from 12,000 million in 1981 to 18,500 million roubles in 1984. The benefits to developing countries from trade with the USSR and other CMEA member-countries are fairly obvious. Some countries can obtain significant amounts of machinery and equipment for their development programmes on credit provided on very lenient terms. For some the opening up of the large Soviet market means securing additional export capacity or protecting exports from the effect of shrinking Western markets. The share of developing countries in total Soviet consumer imports rose from 0.1 per cent in 1970 to 10 per cent in the mid 1980s, and developing countries now provide two-thirds of imported cotton fabrics. However, it is recognized that opportunities exist to increase this share, and that it is not necessary and there is no good reason to place the bulk of orders for

consumer goods with Western Europe or Japan while these countries themselves buy many such products from Asia, Africa and Latin America.[1/]

The analysis of the Soviet textile and clothing imports shows that among developing countries India is the largest supplier. For many years the USSR has been purchasing in India cotton fabrics, knitted outer- and underwear, clothes, bed linen, towels, etc. Indian textiles and clothing import in 1984 amounted to 141 million roubles. Since the mid-1970s, the Syrian Arab Republic has been exporting to the USSR silk and synthetic fabrics, knitted goods, etc. All these products are rather popular on the Soviet market and now Syria ranks third after Japan and Poland in Soviet imports of silk and synthetic fabrics.

One of the main suppliers of imported textiles and clothing to the USSR is Pakistan. This country supplies the USSR with cotton fabrics, clothing, bed linen, etc. Among other suppliers of textile and clothing goods to the USSR are Turkey, Iran, Lebanon, Malta, Cyprus, Peru and others.

2.3 Trends in the concentration of production

A typical feature of the textile industry in the USSR is its increasingly growing concentration (Table 2.5). In fact, in 1975, 14.8 per cent of cotton spinning mills with a number of spindles of 150,000 or more made up 40 per cent of the total number of spindles, whereas in 1980 these mills numbering 15.5 per cent of the total accounted for 41.3 per cent of industry's spindles. This trend also prevailed in cotton weaving, where the ratio of mills having more than 3000 looms was 13.0 in 1971, 13.2 per cent in 1975 and 14.5 per cent in 1980. Although large mills have potential for achieving economies of scale, and have above-average labour productivity, they lag behind the smaller in terms of capital fund utilization efficiency. This can be accounted for by the fact that a number of large enterprises face the problem of labour shortages. For that reason they encourage operators to work with more looms, which, in turn, lower their speed and, hence, efficiency.

The wool segment has also been concentrating its production. In 1975 spinning mills having more than 20,000 spindles amounted to 24.6 per cent of the total industry, whereas in 1980 their share grew to 29.7 per cent. In 1975 and 1980 they represented 72.9 and 81.3 per cent, respectively, of the total number of spindles of the segment. Here the largest mills also have the highest labour productivity and equipment efficiency (see Table 2.6). The concentration tendencies are even stronger in the wool weaving industry: the number of large factories (here defined as mills with 700 looms or more) increased nearly two-fold during 1971-1980 (from 6.4 to 11 per cent of the total number of mills, respectively).

1/ Ivanov I.D., The Soviet Union in a Changing Global Economic Setting: the Prospects for Trade-oriented Growth, UNCTAD/ST/TSC/4, 25 April 1986.

In the linen segment the concentration trends are similar to those in the cotton subsector, except that labour productivity in spinning is somewhat greater. The lower than average equipment efficiency in the largest enterprises has been somewhat improved in recent years, but whereas they have the highest labour productivity, the smallest continue to demonstrate the highest efficiency in the utilization of the equipment. Concentration has also been pronounced in the silk segment. As in wool spinning, the largest enterprises have both the highest productivity of labour and the highest equipment efficiency.

Table 2.5. Concentration trends in the textile industry by segments according to the number of installed spindles or looms, 1975-1980
(Share in the total number of mills in the subsector, per cent)

Factory size	Cotton spinning		Cotton weaving		Wool spinning		Wool weaving		Linen spinning		Linen weaving		Silk	
	1975	1980	1975	1980	1975	1980	1975	1980	1975	1980	1975	1980	1975	1980
Small	9.2	9.4	12.2	8.3	6.6	4.2	12.2	12.0	18.8	9.1	7.1	21.0	10.8	13.0
Medium	76.0	75.1	74.6	77.2	68.8	66.1	77.4	77.0	60.4	68.6	71.4	55.3	64.2	46.0
Large	14.8	15.5	13.2	14.5	24.6	29.7	10.4	11.0	20.8	22.3	21.5	23.7	25.0	41.0

Source: Calculated by the data of the Ministry of the Light Industry of the USSR.

Table 2.6 Ratio of labour productivity and equipment efficiency to the segment's averages, 1980

(Per cent)

Factory size	Cotton spinning		Cotton weaving		Wool spinning		Wool weaving		Linen spinning		Linen weaving		Silk	
	Per operator	Per 1000 spindles	Per operator	Per loom	Per operator	Per 1000 spindles	Per operator	Per loom	Per operator	Per 1000 spindles	Per operator	Per loom	Per operator	Per loom
Small	27.5	89.2	12.2	53.4	34.7	81.7	44.1	68.2	84.5	137.0	60.5	95.9	35.0	75.3
Medium	94.14	110.3	84.9	100.5	56.2	90.9	67.7	63.6	84.3	113.0	97.8	105.5	60.9	86.6
Large	107.3	92.0	104.9	94.9	138.7	102.3	170.1	133.6	122.0	92.0	104.9	97.4	114.0	103.3

Source: Calculated by the data of the Ministry of the Light Industry of the USSR.

2.4 Employment patterns and labour productivity

As mentioned in Chapter I, the textile and clothing industry is one of the biggest employers in the USSR, with a work force in 1983 of 4.4 million. Since 1980 employment in the textile and clothing industry has been affected by the process of transition to a more capital-intensive development in the industry and over 1980-1983 employment decreased by 2.0 per cent (2.8 per cent in the textile and 1.2 per cent in the clothing industry). At the same time the number of enterprises in the sector increased by 1.1 per cent (1.8 per cent in the textile and 0.8 per cent in clothing industry) (Table 2.7).

This trend was accentuated by the slowdown in the growth of the active population attaining working age. As the previous policy of reducing the number of economically active population employed in agriculture was stopped at the beginning of the 1980s, this change substantially reduced the reservoir of manpower available for redeployment in industry. Growing demand for labour in the non-material sphere intensified this constraint. According to information provided by the Ministry of the Light Industry of the USSR, employment in individual segments in general follows production trends. In contrast to the general work force decline, employment continues to grow in the knitwear and non-woven segments, i.e. in the technologically advanced industries. Increase in the output of cotton also caused some growth of the workforce in this segment.

An analysis of female labour in the clothing and textile industry shows different trends for the clothing and textile segments. The share of women in the clothing industry is currently estimated at 75-80 per cent on the average and will hardly decline in the near future. In contrast, the textile industry shows a steady decline in female labour. For example, in enterprises producing finished textile products the ratio of women dropped from 76 per cent in 1970 to 68 per cent in 1980 and the absolute female employment in these industries decreased by nearly 20 per cent. The reason for this development is quite simple: the productivity of labour grows at a higher

Table 2.7 Number of enterprises and employment in the textile and clothing industry of the USSR, 1979-1983 a/

Industry	Number of enterprises (Number)					Average number of employees (Thousands)				
	1979	1980	1981	1982	1983	1979	1980	1981	1982	1983
Textile	1943	1967	1979	1996	2003	2253	2252	2232	2210	2189
Clothing	5177	5113	5149	5118	5156	2241	2256	2272	2250	2289
Total	7120	7080	7128	7114	7159	4494	4508	4504	4460	4418

Source: Industrial Statistics Yearbook 1983, United Nations, New York.

a/ Excluding industrial units of collective farms and small subsidiary industrial enterprises.

rate for operating personnel (women) than for maintenance, where predominantly male labourers are employed.

At the same time, together with new technological developments, there is a need of additional services for sophisticated equipment. Under influence of these factors the share of women in the textile industry is expected to be reduced as much as 50-55 per cent within the next 15 years. As a result, the traditional approach to the geographical distribution of the textile industry needs to be revised. Previously textile factories were predominantly built as "satellites" of heavy industries to balance the employment opportunities of men and women, while already today this approach leads to incomplete capacity utilization because of labour shortages.

However, it is commonly believed that while labour resources are limited, the raising of labour productivity levels can provide an important boost to industrial growth potential. Labour productivity growth in the textile and clothing industry recorded high average annual growth rates in the late 1970s (Table 2.8), but slowed down in 1980-83. Together with the deceleration of employment, this had an adverse impact on the growth rates of the output of the sector. In order to improve efficiency of production and quality of finished goods, a Comprehensive Programme for the Production of Consumer Goods and Services in the Period 1986-2000 was elaborated and included a new set of measures to promote economic incentives and to fix the responsibility of enterprises for improving the supply of consumer goods.

Wages and salaries in the industry are closely related to labour productivity, with the aim of ensuring their better correspondence to the quantity and quality of labour contributions. Measures have also been undertaken to ensure slower growth of wages than labour productivity. However, in order to stimulate light industry development and according to the economic strategy for 1976-1980, the Government decided to make very large wage and salary rises to the employees of the textile and clothing industry. This wage reform brought positive results in labour productivity (Table 2.8). Labour productivity is also affected by the availability of skilled personnel. Yearly requirements of the textile and clothing industry for such personnel are 420-440 thousand and are met either by training in vocational schools or directly in the industry. In addition, the USSR has recently begun to introduce long-term reforms to improve professional qualifications and vocational skills.

Table 2.8 Output, employment, labour productivity and wage growth, 1976-1984
(average annual change)

	Output growth		Employment growth		Labour productivity indices growth a/		Wage growth	
	1976-80	1981-84	1976-80	1981-84	1976-80	1980-83	1976-80	1981-84
	(per cent)		(per cent)		(points)		(per cent)	
Industrial sector	4.4	3.7	1.60	1.02	22	10	14.3	10.3
Textile industry	2.7	0.8	0.3 b/	-2.8 c/	16	6	20.2	...
Clothing industry	5.0	2.0		-1.2 c/	20	8	22.2	...

Source: Table 2.7; Statistichesky ezhegodnik stran-chlenov SEV (CMEA Statistical Yearbook) 1984 and 1985; Ministry of the Light Industry of the USSR.

a/ Indices of labour productivity of productive personnel in state and cooperative industry. Productivity indices for industry as a whole or for its individual branches are calculated as the ratio of the productivity of labour during the period under review to the productivity of labour during a base period. The level of labour productivity for the period under review and the base period is arrived at by dividing the gross industrial output (at comparable prices) by the average annual strength of the industrial productive labour force.

b/ For the textile and clothing industries together.
c/ For 1980-1983.

2.5 Raw material supply

The main part of the raw material inputs for the textile industry is made up by cotton fibers (Table 2.9), which in 1984 accounted for 48.2 per cent (compared to 55.2 per cent in 1970). The share of natural fibers in textile raw materials remains high: in 1970 their share was 83 per cent, which fell by 1984 to 68.5 per cent. The high share of natural fibers makes the sector dependent on the cotton harvest, which is to some extent vulnerable to weather and climate conditions. These factors sometimes lead to broad fluctuations in the supply of natural fibers. For example, in 1984 the utilization of cotton fiber increased only by 5.1 per cent compared to 1970, whereas in 1970 to 1980 the increase was 10.9 per cent. The consumption of flax fiber has been gradually diminishing during the past 14 years; in 1984 it was 68.6 per cent of the 1970 level. The consumption of hemp fiber was 56.3 per cent in 1984 compared to 1970, animal wool consumption grew by 33.8 in 1984 versus 1970. But as the share of wool only amounts to about 13 per cent of all natural fibers, the growth in wool consumption did not have a crucial impact on the total picture of natural fibers utilization. In general there is a trend of the reduction of natural fibers consumption from 83.0 per cent in 1970 to 68.5 per cent in 1984. The need to raise the efficiency of farming to improve the quality of textile materials, leads to reductions in the use of natural textile materials and their substitution by chemical fibers.

The share of chemical fibers in the textile raw materials nearly doubled over 1970-1984. This trend is seen as positive, since it contributes to increased stability of the raw material basis for the textile industry, raises the economic efficiency of textiles production, and broadens the assortment of products.

Table 2.9 Structure of raw material inputs into textiles, 1980-1984
(per cent)

Material	1970	1975	1980	1984
Total textile raw materials	100.0	100.0	100.0	100.0
Cotton fibers	55.2	53.8	52.1	48.2
Flax fibers	13.3	10.6	8.4	7.6
Hemp fibers	3.2	2.6	1.5	1.5
Kenaf and jute fibers	1.7	1.9	1.9	1.5
Natural wool	7.6	8.6	9.2	8.5
Regenerated wool	1.0	0.8	0.7	0.7
Factory wool	0.9	0.7	0.5	0.4
Raw silk threads	0.1	0.1	0.1	0.1
Total natural fibers	83.0	79.1	74.4	68.5
Artificial (man-made) fibers	12.7	12.8	13.2	16.0
Synthetic fibers	4.4	8.1	12.1	15.5
Total chemical fibers	17.1	20.9	25.6	31.5

Source: Ministry of the Light Industry of the USSR.

2.6 Technological change and developments

Technological modernization is a major factor of the planned growth in the textile and clothing industry. The main feature of the economic development of the USSR is the emphasis placed on the qualitative factors of economic growth, with no extra labour input. This can be achieved through the introduction of advanced technologies, mechanization and automation of main production processes, in other words through intensive renovation of the fixed capital.

In spinning, the principal areas of technological change are:

- wider use of automated production lines to shorten the time of transfer between the machines used in different stages of spinning;
- introduction of high-speed spinning machines; and
- measures to reduce raw material wastes in their use and transfer.

In weaving, modernization involves further development of multiphase looms and automation of processes at the preparatory stages to increase productivity.

Technological progress has expanded the range of non-woven fabrics produced without interlacing. Such fabrics offer possibilities to improve efficiency and to minimize cost of production since they combine the fibre and fabric production process. Strong impetus will also be given to development of new mechanical non-woven methods. In knitting, operating speeds are also being increasing steadily by computer-assisted pattern design with electronic selection of individual needles and implementing computer control of all processes.

In the clothing industry it is desirable to set up flexible integrated-mechanized lines and, based on them, factories for manufacturing mass-produced garments of high quality. Further it is intended to install second-generation integrated-mechanized lines, which will increase the productivity of labour by 25-30 per cent and ensure rapid product line modifications in accordance with fashion and consumer demand.

Wider use of sophisticated equipment and machinery set a number of new requirements for the textile machine building sector of the Soviet heavy industry. A large portion of these new technologies comes from abroad. The geographic distribution of imported equipment for the textile industry is given in Table 2.10.

In 1984 total imports of such equipment was almost 10 times higher than in 1970 and nearly doubled compared to 1980. The largest part of new imported equipment for the textile industry comes from Czechoslovakia (Table 2.10), followed by the GDR, Poland and Bulgaria. The share of these four countries alone in 1970 USSR imports of textile machinery was 76.1 per cent, 85.5 per cent in 1980 and 88.9 per cent in 1984, reflecting increasingly extending co-operation and specialization of production between the CMEA member-countries. At the same time, imports from market economy countries fluctuated considerably, accounting for 22.4 per cent of the total in 1970, 43.8 per cent in 1975, 11.4 per cent in 1980 and only 6.5 per cent in 1984.

Table 2.10 Origin of imported equipment for the textile industry of the USSR, 1970-1984

(million roubles)

	1970	1975	1980	1984
Total imported equipment for the textile industry	72.9	271.5	392.1	706.3
Bulgaria	2.5	11.0	16.9	40.3
Czechoslovakia	28.5	81.0	212.9	427.8
Federal Republic of Germany	2.5	14.2	14.9	10.3
France	6.2	7.0	2.2	6.5
German Democratic Republic	17.6	28.5	57.9	95.6
Hungary	0	3.9	7.6	13.6
Italy	3.6	47.3	3.8	6.9
Japan	1.3	11.0	17.0	6.5
Netherlands	-	1.2	0.7	2.8
Poland	6.9	19.6	47.3	64.3
Romania	-	-	-	8.9
Switzerland	0.8	25.5	3.7	5.9
United Kingdom	1.9	9.1	2.1	7.3
USA	0.1	3.5	0.2	-

Source: Vneshnyaya Torgovlya v SSSR v 1984, (Foreign Trade of the USSR in 1984),Moscow, 1985.

Table 2.11 Geographical distribution of imported equipment for the textile industry of the USSR, 1970-1984

(per cent)

	1970	1975	1980	1984
Total imported equipment for the textile industry	100.0	100.0	100.0	100.0
Bulgaria	3.4	4.1	4.3	5.7
Czechoslovakia	39.1	29.8	54.3	60.6
Federal Republic of Germany	3.4	5.2	3.8	1.5
France	8.5	2.6	0.6	0.9
German Democratic Republic	24.1	10.5	14.8	13.5
Hungary	0.0	1.4	1.9	1.9
Italy	4.9	17.4	1.0	1.0
Japan	1.8	4.1	4.3	0.9
Netherlands	-	0.4	0.2	0.4
Poland	9.5	7.2	12.1	9.1
Romania	-	-	-	1.3
Switzerland	1.1	9.4	0.9	0.8
United Kingdom	2.6	3.4	0.5	1.0
USA	0.1	1.3	0.1	-

Source: As for Table 2.10.

III. PROBLEMS OF RESTRUCTURING IN THE TEXTILE AND CLOTHING INDUSTRY

The development concepts for the future of the textile and clothing industry in the USSR are radically new. They stem both from sharply increased requirements of consumers for product quality as well as from the shrinking resource base.

In the 1960s and 1970s the industry was developed predominantly in a labour-intensive way, meaning that production was increased primarily by bringing onstream new industrial capacities, whereas little attention was paid to modernization and reconstruction of the existing plants. It led to a low capacity utilization since labour resources were almost fully exhausted. Moreover, the newest plants equipped by modern technology had the lowest efficiency due to the fact that skilled labour continued to be employed by obsolete plants in the centres of traditional industry.

Meanwhile, the capacity rate of fixed capital tended to decline, and new technology substantially raised the productivity of labour in the textile industry. For example, the growth of productivity resulting from the use of new ring spinning machines amounted to 30 per cent, "microshuttle" looms to 100-150 per cent, etc. which lead to the growth of the capital intensity of the industry.

The present structure of profits and their dynamics depend on the existing pricing practices for textiles and clothing. Generally speaking, profits are distributed among major segments according to their output (Table 3.1). The drastic change in the industry profit distribution picture in 1984 versus 1980 was a result of wholesale prices revision carried out in 1981-82. These prices were raised for cotton, linen and knitwear and reduced for wool, silk and clothing to harmonize the profitability of these segments with their real economic efficiency. This revision of wholesale prices provides enterprises with new level of profits and enables efficient enterprises to have adequate financial resources for their operations, bonus funds, renovation of capital funds as well as payments to the budget.

The combination of limited labour resources and sharp increase in capital intensity gave rise to the following problems:

i) In spite of the radical renovation, the technological level of several textile segments is not sufficiently high, particularly in the production of wool and linen fabrics, in textile haberdashery, and in the primary processing of wool and flax;

ii) The large share of multipurpose, non-standard equipment in the clothing industry lowers labour productivity growth rates and lowers the quality of goods;

iii) When installed to replace obsolete machines, many types of currently manufactured machinery increase the amount of automatic transfer between operations, which leads to dramatic decrease of factory floor space, needed for a given amount of output. This substantially reduces the benefits of reconstruction and renovations;

iv) The raw material supply of the textile industry is unstable in terms of volume, quality and assortment of natural and chemical fibers. Special problems exist in production of modern synthetic fabrics, since the chemical industry has so far not met the requirements of the textile industry. This, in turn, hampers the diversification of clothing product mix;

v) The clothing industry is hampered by shortages of modern facing and especially lining fabrics; and

vi) The existing production capacity is not fully used.

Table 3.1 The distribution of profits in the textile and clothing industry, 1975-1984
(per cent)

	1975	1980	1984	Profit growth rate 1980/1975	1984/1975	1984/1980
Textile industry	64.1	61.6	71.7	4.7	62.6	55.3
Cotton	14.7	14.2	26.4	5.6	61.4	47.5
Linen	3.8	2.4	3.4	-31.7	29.9	90.2
Wool	16.6	15.8	15.4	4.0	34.7	29.5
Silk	6.8	8.6	7.0	38.8	51.4	8.8
Knitwear	7.4	10.9	12.0	61.8	36.1	46.0
Clothing industry	35.9	38.4	28.3	16.8	14.8	-1.7
Total textile and clothing industry	100.0	100.0	100.0	9.0	45.5	33.4

Source: Ministry of the Light Industry of the USSR.

Possible solutions to the above mentioned problems are foreseen by the recently adopted Comprehensive Programme for the Development of the Production of Consumer Goods and Services, 1986-2000. The first stage of the programme (1986-1990) is directed to balancing supply and demand for textile and clothing products in both quantity and assortment. In the second stage (1990-2000) it is envisaged to ensure a radically new level of quality to meet the consumers' demands and to fulfil industrial requirements.

However, in moving towards fulfilment of these goals the following obstacles have to be overcome. The principal feature of the shifting demographic situation is the deceleration of the population's growth rates. In 1986-1995 the potential work force is expected to decrease in absolute terms, this reduction being especially acute in the traditional textile and clothing areas. The only way to avoid negative impact from this trend is to boost labour productivity (while simultaneously decreasing the number of workers). In such conditions new plants should be provided with the necessary workforce released from existing plants as a result of their modernization. This will require different investment policies in the clothing industry and in some segments of the textile industry.

Development of such "old", traditional textile segments as cotton, wool, and linen is to be predominantly carried out by reconstruction of existing plants in traditional textile areas. It is envisaged also to increase the production of clothing through the introduction of new technologies, without extending the existing production capacities. In contrast, in the advanced subsectors, i.e. knitwear, silk and non-woven fabrics, there is a need for large investments in new plants in newly developed, industrial regions.

Of primary importance for rational distribution of labour resources is the formulation and implementation of a programme of reduction of manual work in the textile and clothing industry on the basis of its mechanization and automation, especially in many auxiliary jobs and processes. This is the area of greatest labour reduction potential, which involves the lowest capital cost.

Substantial potential resources for development of the textile and clothing industry lie in the changes of their raw materials base. The quality of agricultural materials such as wool and cotton and shipment of these materials according to requirements is critically important, and the quality of traditional Russian flax fiber has to be radically improved. The ratio of long-fiber flax should be raised up to 40 per cent and the production of flax straw increased two- or three-fold. However, the key to upgrading raw materials for the textile industry is the wider use of chemical fibers. The share of chemical fibers in raw materials for the textile industry is envisaged to be raised to at least 40 per cent, with synthetic fibers in chemical fibers up to 60-65 per cent. The output of polyester fibers and threads and synthetic industrial fabrics has to be doubled. Optimization of the raw material base for the textile industry can also be achieved by boosting the output of non-woven fabrics for industrial applications. Forecasts to the year 2000 predict that growth in this product can divert enough natural fiber to produce 2.5 million sq. m fabrics. The raw material base of the clothing industry is to a great extent a derivative of textile products, but special emphasis should be placed on modern lining materials which can ensure elegance, fashion, light weight and quality.

Technological progress and the improvement of raw materials base for the textile and clothing industry are closely related to the diversification of the product assortment and product quality. Experience shows that in terms of quality and fashion the textile and clothing industry is still incapable of meeting the increased consumer

requirements. This quality gap manifests itself in the absence of a sheen, and low efficiency of finishing, bad designs of many garments, and poor adaptation to changes in fashion. In this context, within the next few years it is expected that a consumer-oriented programme will be implemented to improve product quality. This will include utilization of new capacity in finishing, elimination of bottlenecks in manufacturing processes, and setting up capacity reserves for better market-oriented manufacturing flexibility.

It is also necessary to formulate and implement product mix programmes aimed at wiping out the short supply of such products as jeans fabrics and high quality worsted fabrics for suits, including cloth made from low linear density yarn. Estimates show that in three textile segments - cotton, wool, and silk - alone the average annual output can be increased by 1,000 or 1,500 million roubles, due to product mix improvements through reconstruction, modernization and extension of new finishing capacities.

The cotton industry has to radically improve its assortment in two directions: increase in its output of blended fabrics to 35 per cent of the total production or more and a sharp reduction of pure cotton cloths for industrial applications. In the knitting industry special emphasis is placed on production of sports clothes, the less available in internal markets. And the clothing industry has to raise its production of modern fashions by reducing the manufacture of traditional products such as conventional dresses, suits, and overcoats.

Production should be oriented to satisfy tastes of special consumer groups, especially youth, with prices differentiated according to the quality of products in the series. However, the existing rates of growth should be retained for inexpensive products for such consumer categories as children and elderly citizens.

For improving the organizational structure of the industry, it is envisaged to raise the level of product and process specialization to optimize co-operation between segments of the textile and clothing industry as well as to establish long-term contracts with raw material supliers. Of paramount importance for the improvement of efficiency in the sector is an optimization of industrial capacities of new and reconstructed plants through the minimization of capital and operational expenses. It is necessary also to have flexible production of clothing.

Improvement of the organizational structure is especially acute for the clothing industry. It still has a low specialization level, with some factories manufacturing a very wide product assortment - from linen to winter coats. In such circumstances it is impossible to use highly efficient specialized equipment and technology, and as a result, the product quality is poor and productivity of labour grows at a slow rate. Estimates show that improvements in the organizational structure alone could increase labour productivity in the clothing industry by 10-15 per cent without any investments.

An integral part of restructuring process in the textile and clothing industry of the USSR is an improvement of management, which implies better

harmonization of central planning with economic methods and incentives. Major changes in this direction include:

i) better planning to balance product output and mix with consumer demand and supply with raw materials;

ii) higher efficiency in industry and trade, including formulation of criteria for assessment of economic activities of enterprises, bonuses, credit and pricing policies, etc.;

iii) setting up of a system of strict responsibility of industrial and trade enterprises for fulfilment of their planned and contracted commitments;

iv) application of a sufficiently flexible and effective management structures to ensure better geographical distribution of the sector's enterprises over the country and to improve co-ordination of product quantities and their mix;

v) a greater degree of self-management for individual enterprises in planning of product mix; and

vi) formulation of production plans on the basis of contracts between industrial and trade enterprises as well as with suppliers of raw materials, equipment, etc.

IV. THE NEW ECONOMIC STRATEGY AND DEVELOPMENT PROSPECTS FOR THE TEXTILE AND CLOTHING INDUSTRY IN THE USSR

As already stressed, the paramount aim of the new economic strategy in the USSR is to shift from an extensive to an intensive pattern of growth and to ensure technological and structural modernization of industry. This calls for the acceleration of technological progress and far-reaching structural changes in the economy as the two key components for its qualitative reconstruction. The new Soviet economic strategy envisages assigning a greater role and more responsibility to individual enterprises and their associations. They are being given a greater degree of self-management on a cost-accounting basis, their performance is now being measured by profits gained and not by the gross output as before.

Accordingly, the functions of planning and management at all levels are being changed. Such central bodies as, for example, GOSPLAN (State Planning Committee) will focus on strategic long-term decisions including technological, structural and investment policies, social development, price setting, finance, accounting and statistics. The number of planning indicators will be markedly reduced, they will set up mainly qualitative criteria, i.e. productivity, efficiency, technological progress, comparative advantage, etc. Under the new economic mechanism the State will rely more on indirect regulatory instruments like credits, prices, depreciation rates, taxes, grants and other incentives. Pricing policies will be oriented toward labour and material saving as well as quality improvement.

Projected development prospects for the textile and clothing industry were formulated in full comformity with new economic concepts. The highest growth is envisaged for segments with more efficient production methods, primarily the non-woven technologies, and there is also a trend of increased growth of clothing compared to textiles (see Table 4.1).

The output of fabrics is projected to reach in 1990 a level of 14,000 - 15,000 million sq. m with growth up to 18,000 - 19,000 million in the year 2000. This includes a two-fold increase in the production of new types of silk cloth and a 230 per cent increase in the output of non-woven fabrics by the year 1990.

Table 4.1 Projected average growth rates for the output of the textile and clothing industry in the USSR, 1980-2000

Product	Unit	Growth rate (per cent) 1985/ 1980	1990/ 1985	1995/ 1990	2000/ 1995	2000/ 1985
Total fabrics	m^2	111	107	111	111	132
of which, silk fabrics	m^2	112	107	123	127	166
Total non-woven materials	m^2	228	162	120	128	250
of which non-woven fabrics	m^2	335	182	128	132	308
Knitted garments	pieces	114	113	114	115	150
Knitted underwear	pieces	126	117	107	127	160
Hosiery	pairs	107	116	109	108	137
Clothing products (in 1975 prices)	roubles	118	112	112	110	138
Carpets and rugs	m^2	106	133	114	111	170

Source: Comprehensive Programme for the Development of the Production of Consumer Goods and Services, 1986-2000, "Pravda", 9 October 1985.

The output of knitwear is planned to be raised to 2,200-2,300 million pieces in 1990 and to 3,300-3,400 million pieces by the year 2000, and the output of clothing products is expected to grow to 25,000-26,000 million roubles in 1990 and to 34,000-35,000 million roubles by the year 2000.

According to the programme, the output (as retail price value) of light industry products will be raised to 103,000 million roubles in 1990 and to 142,000 million roubles by the year 2000 compared to 85,000 million roubles in 1985.

Together with quantitative growth, the programme also envisages substantial expansion of product assortment. This diversification of production is designed to improve not only the textile industry's market potential and to raise the quality of ready-made garments (in consumer estimates), but also to produce substantial economic benefits through reduction of production cost on the average by 3-4 per cent.

Employment in the textile and clothing industry in 1986-2000 is predicted to be unchanged and growth of the output should be achieved only through increased productivity and intensive utilization of production capacities. The fixed capital of the textile and clothing industry has

been planned to grow primarily during 1986-1990 and practically remain unchanged in the following decade. The growth rate of productivity of labour during 1986-2000 is supposed to be 1-1.5 per cent higher than the growth of capital input, to ensure the investments efficiency requirements.

Finally, as a result of this strategy, forecasts suggest that the share of clothes in total personal consumption of the USSR population will stabilize at about 20 per cent in spite of the considerable absolute growth in 1985-2000. This stabilization will be achieved against the background of a more rapid growth in the consumption of durable goods and services.

Appendix

Explanation of the terms used in the current study according to the statistics of the CMEA Secretariat 1/

Artificial man-made fibres: Fibres made from natural polymers on the basis of cellulose, casein, etc.

Chemical fibres: Artificial and synthetic fibres, excluding glass fibres.

Cotton fibrics or cotton and cotton-type fabrics: Fabrics made entirely from cotton yarn or of mixed yarn-made of a mixture of cotton fibre with other natural, artificial and synthetic fibres, as well as of spun yarn. The total of fabrics includes measured rags, i.e. length of fabric in accordance with the national standard.

Cotton fibre: Fibre cleaned of seeds and other admistures with a limited number of defects and weeds not exceeding 24 per cent. Long and short fibres are included.

Cotton yarn and cotton-type yarns: This includes yarns made entirely from cotton fibre or from a mixture of cotton fibre with artificial and synthetic fibres, as well as cotton-type yarn (spun yarn).

Fabrics: Cotton and cotton-type fabrics, wool and wool-type fabrics, silk and semi-silk fabrics and linen-type fabrics.

Flax fiber: This includes long fibre, i.e. fibre obtained by spreading and retting flax stalks (flax straw) and scutching crushed flax stock; short fibre, i.e. fibre obtained from processing flax stock scutching waste, as well as from processing low gauge flax stock and scutched flax.

Flax yarn: Yarn made entirely from long and short flax fibres, as well as from a mixture of flax fibre with artificial and synthetic fibres, and flax-type yarn.

Hosiery: Stockings and socks of all types (including sports wear), gaiters, men's, women's and children's knitted trousers of all sizes, made on both cotton-knitting machines and circular knitting machines, from wool and cotton yearn, and from artificial, synthetic and natural silk.

Knitted garments (including sports wear): Dresses, suits, jackets, sweaters, pullovers, trousers and skirts, made from fibres of all types.

Knitted underwear (including sports wear): All men's, women's and children's underwear made of knitted of all fibres.

1/ Council for Mutual Economic Assistance Secretariat, Statistical Yearbook of Member States of the CMEA, "Statistika", Moscow, English language editon, published by IPC Industrial Press Ltd., London, 1979.

Linen fabrics or linen and linen-type fabrics: Linen and hemp fabrics. Linens made from pure flax yarn and from yarns obtained by mixing flax yarn with other natural yarns and with artificial and synthetic yarns. Hemp fabrics made from yarn produced from hemp fibre, ramie fibre and kenaf.

Non-wovens or non-woven textiles: Fabrics made by the insertion, bonding and other processes.

Silk fabrics: Fabrics made from natural silk, artificial or synthetic silk, or from twisted or synthetic silk, or from twisted and thrown natural or synthetic silk filaments.

Synthetic fibres: Fibres obtained by the polymerization or polycondensation of polymers of synthetic origin.

Wool fabrics or wool and wool-type fabrics: Fabrics made from pure wool, mixed and spun yarns, as well as from wool yearn with admixture of cotton, artificial and synthetic silk.

Wool yarn and wool type yarn: This includes yarn entirely made of wool or from a mixture of wool with artificial and synthetic fibres, as well as wool type yarn. Worsted and woolen yarns are included.

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